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Sequence Listing was accepted.

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Reviewer: markspencer

Timestamp: Mon Oct 15 13:16:29 EDT 2007

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**Application No:** 10588734      **Version No:** 1.0

**Input Set:**

**Output Set:**

**Started:** 2007-09-25 16:27:36.540  
**Finished:** 2007-09-25 16:27:38.117  
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 577 ms  
**Total Warnings:** 40  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 40  
**Actual SeqID Count:** 40

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W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

**Input Set:**

**Output Set:**

**Started:** 2007-09-25 16:27:36.540  
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**No. of SeqIDs Defined:** 40  
**Actual SeqID Count:** 40

Error code	Error Description
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SEQUENCE LISTING

<110> KUFER, PETER  
LENKKERI-SCHUTZ, ULLA  
LUTTERBUSE, RALF  
KOHLEISEN, BIRGIT

<120> LESS IMMUNOGENIC BINDING MOLECULES

<130> 028622-0155

<140> 10588734  
<141> 2007-09-25

<150> PCT/EP05/001573  
<151> 2005-02-16

<150> EP 04003445.6  
<151> 2004-02-16

<160> 40

<170> PatentIn version 3.3

<210> 1  
<211> 318  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
OKT3 light chain

<400> 1

gacatccaga tgaccaggc tccatcctcc ctgtctgcattt	ctgttaggaga cagagtacc	60
atcacttgca gtgcaaggttc aagcgtaagc tacatgaattt	ggtatcagca gacaccagg	120
aaagcccccta agagatggat ctatgacaca tccaaattgg	cttctgggtt cccatcaagg	180
ttcagtggca gtggatctgg gacagattac actttcacca	tcagcagtctt gcaacctgaa	240
gatattgcaa cttactactg tcaacagtgg agtagtaacc	cttttactttt tggccagg	300
accaagctgc agatcacc		318

<210> 2

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
OKT3 VL

<400> 2

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly			
1	5	10	15

Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met  
20 25 30

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr  
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr  
85 90 95

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr  
100 105

<210> 3

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 3

agagcaagtt caagcgtaag ctacatgaat 30

<210> 4

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 4

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn  
1 5 10

<210> 5

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 5

gacacatcca aagtggcttc t

21

<210> 6

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 6

Asp Thr Ser Lys Val Ala Ser

1 5

<210> 7

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 7

caacagtgga gtagtaaccc tctcact

27

<210> 8

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 8

Gln Gln Trp Ser Ser Asn Pro Leu Thr

1 5

<210> 9

<211> 318

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic CD3 VL

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aaagcccccta agagatggat ctatgacaca tccaaagtgg cttctgggtt cccatcaagg 180  
ttcagtggca gtggatctgg gacagattac actttcacca tcagcagtct gcaacctgaa 240  
gatattgcaa cttactactg tcaacagtgg agtagtaacc ctctcacttt tggccagggg 300  
accaagctgc agatcacc 318

<210> 10  
<211> 106  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
CD3 VL

<400> 10  
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met  
20 25 30

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr  
35 40 45

Asp Thr Ser Lys Val Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr  
100 105

<210> 11  
<211> 357  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
CD3 VH

<400> 11

caggtgcagc tggtgcagtc tgggggaggc gtggccagc ctgggaggc cctgagactc 60  
tcctgtaagt cttctggata cacccact aggtatacga tgcactgggt ccgccaggct 120  
ccagggaaagg ggctggagtg gattggatac ataaatccta gccgtggta tactaattat 180  
aatcagaagg tgaaggaccg attcaccatc tccagagaca actccaagaa cacggcctt 240  
ctgcaaatgg acagcctgag acccgaggac acgggtgtgt atttctgtgc gagatattat 300  
gatgatcatt actgccttga ctactgggc cagggcaccc cggtcaccgt ctccctca 357

<210> 12

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
CD3 VH

<400> 12

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Tyr Thr Phe Thr Arg Tyr  
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val  
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe  
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys  
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly  
100 105 110

Thr Pro Val Thr Val Ser Ser  
115

<210> 13

<211> 729

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

CD3 VH-VL

<400> 13

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tcctgtaagt cttctggata cacctcaact aggtatacga tgcactgggt ccgccaggct 120  
ccagggaaagg ggctggagtg gattggatac ataaatccta gccgtggta tactaattat 180  
aatcagaagg tgaaggaccg attcaccatc tccagagaca actccaagaa cacggcctt 240  
ctgcaaattgg acagcctgag acccgaggac acgggtgtgt atttctgtgc gagatattat 300  
gatgatcatt actgccttga ctattgggc cagggcaccc cggtcaccgt ctcctcagtc 360  
gaagggtggaa gtggagggttc tggtggaaat ggagggttcag gtggagtggc cgacatccag 420  
atgaccaggct ctcacatcctc cctgtctgca tctgttaggag acagagtcac catcaattgc 480  
agagcaagtt caagcgtaag ctacatgaat tggtatcagc agacaccagg gaaagcccct 540  
aagagatgga tctatgacac atccaaagtg gcttctgggg tcccatcaag gttcagtggc 600  
agtggatctg ggacagatta cacttcacc atcagcagtc tgcaacctga agatattgca 660  
acttactact gtcaacagtg gagtagtaac cctctcaatt ttggccaggg gaccaagctg 720  
cagatcacc 729

<210> 14

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
CD3 VH-VL

<400> 14

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Tyr Thr Phe Thr Arg Tyr  
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val  
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe  
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys  
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly  
100 105 110

Thr Pro Val Thr Val Ser Ser Val Glu Gly Gly Ser Gly Gly Ser Gly

115

120

125

Gly Ser Gly Gly Ser Gly Gly Val Asp Asp Ile Gln Met Thr Gln Ser  
130 135 140

Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys  
145 150 155 160

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Thr Pro  
165 170 175

Gly Lys Ala Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser  
180 185 190

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Thr Asp Tyr Thr  
195 200 205

Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys  
210 215 220

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu  
225 230 235 240

Gln Ile Thr

<210> 15

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
CD19 VH

<400> 15

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tcctgcaagg cttctggcta tgcattcagt agctactgga tgaactgggt gaagcagagg 120  
cctggacagg gtcttgagtg gattggacag atttggcctg gagatggta tactaactac 180  
aatggaaagt tcaagggtaa agccactctg actgcagacg aatcctccag cacagctac 240  
atgcaactca gcagccttagc atctgaggac tctgcggctt atttctgtgc aagacggag 300  
actacgacgg taggccgtta ttactatgct atggactact ggggccaagg gaccacggc 360  
accgtctcct cc 372

<210> 16

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
CD19 VH

<400> 16

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser  
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr  
20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Gln Ile Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cys  
85 90 95

Ala Arg Arg Glu Thr Thr Val Gly Arg Tyr Tyr Tyr Ala Met Asp  
100 105 110

Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
115 120

<210> 17

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
CD19 VL

<400> 17

gatatccagc tgaccaggc tccagcttct ttggctgtgt ctctagggca gagggccacc 60  
atctcctgca aggccagcca aagtgttgat tatgtatggtg atagttattt gaactggcac 120  
caacagattc caggacagcc acccaaactc ctcatctatg atgcatccaa tctagttct 180  
gggatcccac ccaggttag tggcagtggg tctggacag acttcaccct caacatccat 240  
cctgtggaga aggtggatgc tgcaacctat cactgtcagc aaagtactga ggatccgtgg 300  
acgttcggtg gagggaccaa gctcgagatc aaa 333

<210> 18  
<211> 111  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
CD19 VL

<400> 18  
Asp Ile Gln Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly  
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp  
20 25 30

Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro  
35 40 45

Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro  
50 55 60

Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His  
65 70 75 80

Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr  
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys  
100 105 110

<210> 19  
<211> 1504  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
anti-CD3

<400> 19  
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gaactggta c caacagattc caggacagcc acccaaactc ctcataatg atgcataccaa 180  
tctagttct gggatcccac ccaggttag tggcagtggg tctgggacag acttcaccct 240  
caacatccat cctgtggaga aggtggatgc tgcaacctat cactgtcagc aaagtactga 300  
ggatccgtgg acgttcggtg gagggaccaa gctcgagatc aaaggtggtg gtggttctgg 360  
cggcggcggc tccggtggtg gtggttctca ggtgcagctg cagcagtcg gggctgagct 420  
ggtgaggcct gggtcctcag tgaagattc ctgcaaggct tctggctatg cattcagtag 480  
ctactggatg aactgggtga agcagaggcc tggacagggt cttgagtgga ttggacagat 540

ttggcctgga gatggtgata ctaactacaa tggaaagtgc aagggtaaag ccactctgac 600  
tgcagaccaa tcctccagca cagcctacat gcaactcagc agcctagcat ctgaggactc 660  
tgcggtctat ttctgtgcaaa gacgggagac tacgacggta ggccgttatt actatgctat 720  
ggactactgg ggccaaggga ccacggtcac cgtctccctcc ggaggtgggt gctcccagg 780  
gcagctggta cagtctgggg gaggcgtggt ccagcctggg aggtccctga gactctcctg 840  
taagtcttct ggatacacact tcacttaggt tacatgcac tgggtccgcc aggctccagg 900  
gaaggggctg gagtggattg gatacataaa tcctagccgt ggttatacta attataatca 960  
gaaggtgaag gaccgattca ccatctccag agacaactcc aagaacacgg ccttcgtca 1020  
aatggacagc ctgagacccg aggacacggg tgtgtatttc tgtgcgagat attatgatga 1080  
tcattactgc cttgactatt gggccaggc cacccggc accgtctcct cagtcgaagg 1140  
tggaaagtggaa ggttctgggt gaagtggagg ttcaggtggta gtggacgaca tccagatgac 1200  
ccagtcctca tcctccctgt ctgcattctgt aggagacaga gtcaccatca cttgcagagc 1260  
aagttcaagc gtaagctaca tgaattggta tcagcagaca ccagggaaag cccctaagag 1320  
atggatctat gacacatcca aagtggcttc tgggtccca tcaagggtca gtggcagtgg 1380  
atctggaca gattacactt tcaccatcg cagtctgcaa cctgaagata ttgcaactta 1440  
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cacc 1504

<210> 20

<211> 498

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
anti-CD3

<400> 20

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1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp  
20 25 30

Gly Asp Ser Tyr Leu Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro  
35 40 45

Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro  
50 55 60

Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His  
65 70 75 80

Pro Val Glu Lys Val Asp Ala Ala Thr Tyr His Cys Gln Gln Ser Thr  
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Gly  
100 105 110

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gln Val  
115 120 125

Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser Ser Val  
130 135 140

Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr Trp Met  
145 150 155 160

Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Gln  
165 170 175

Ile Trp Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly  
180 185 190

Lys Ala Thr Leu Thr Ala Asp Glu Ser Ser Ser Thr Ala Tyr Met Gln  
195 200 205

Leu Ser Ser Leu Ala Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg  
210